The Larva of *Amblyscirtes samoset* (Scudder) (Lepidoptera: Hesperiidae)

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Abstract: The mature larva is described, figured and compared with that of the largely sympatric *A. vialis* (W. H. Edwards). Some larval characters of the genus *Amblyscirtes* Scudder are discussed.

A female *Amblyscirtes samoset* (Scudder) was observed, by Cyril dos Passos and the writer, ovipositing on *Poa pratensis* L. near West Bridgewater, Vermont, on 9 June 1956. A single egg was found, from which the larva was reared to maturity by Dr. dos Passos. The larva was then photographed, studied and preserved by the writer. It is in the American Museum of Natural History. The larva of this species is relatively unknown, almost the only published data on it being those of Scudder (1889, p. 1589–1592, pl. 77, fig. 29). Scudder, however, merely copied one of Abbot's pictures; and his description and figure are quite inadequate.

DESCRIPTION OF MATURE LARVA

LENGTH AT REST: 22.5 mm. Head rounded and only very slightly emarginate dorsally at epicranial suture (Fig. 3), from anterior aspect as wide as high; and with very little taper dorsad; covered with fine, ridgelike reticulations; very sparsely and finely setose. Face (including the central triangular sclerite, the narrow sclerites bordering this laterally, and the anterior edges of the epicrania[2]) dark brown, forming a triangle that narrows toward vertex, and behind vertex joins the dark posterior region of the head; laterad of this on either side a broad, very pale brown band running dorsad almost to vertex (Figs. 1 & 2); posterad of this on either side a dark brown band, ventrally including the anterior 4 stemmata, running dorsad to vertex; posterad of this on either side a broad, pale band running dorsad almost to vertex; vertex and posterior region of head dark brown. Labrum shallowly emarginate. A strong, projecting, slightly recurved spine (here called the *paraclypeal spine*) arising laterad of each ventro-lateral angle of clypeus, protruding forward and ventrad. Stemmata: Nos. 1–4 forming an anterior curving group; of these, 4 is the largest, 3 is slightly smaller than 4, 1 is slightly smaller than 3, and 2 is slightly smaller than 1. No. 6 is almost directly caudad of 4 and about as far from it as 1 is from 3.

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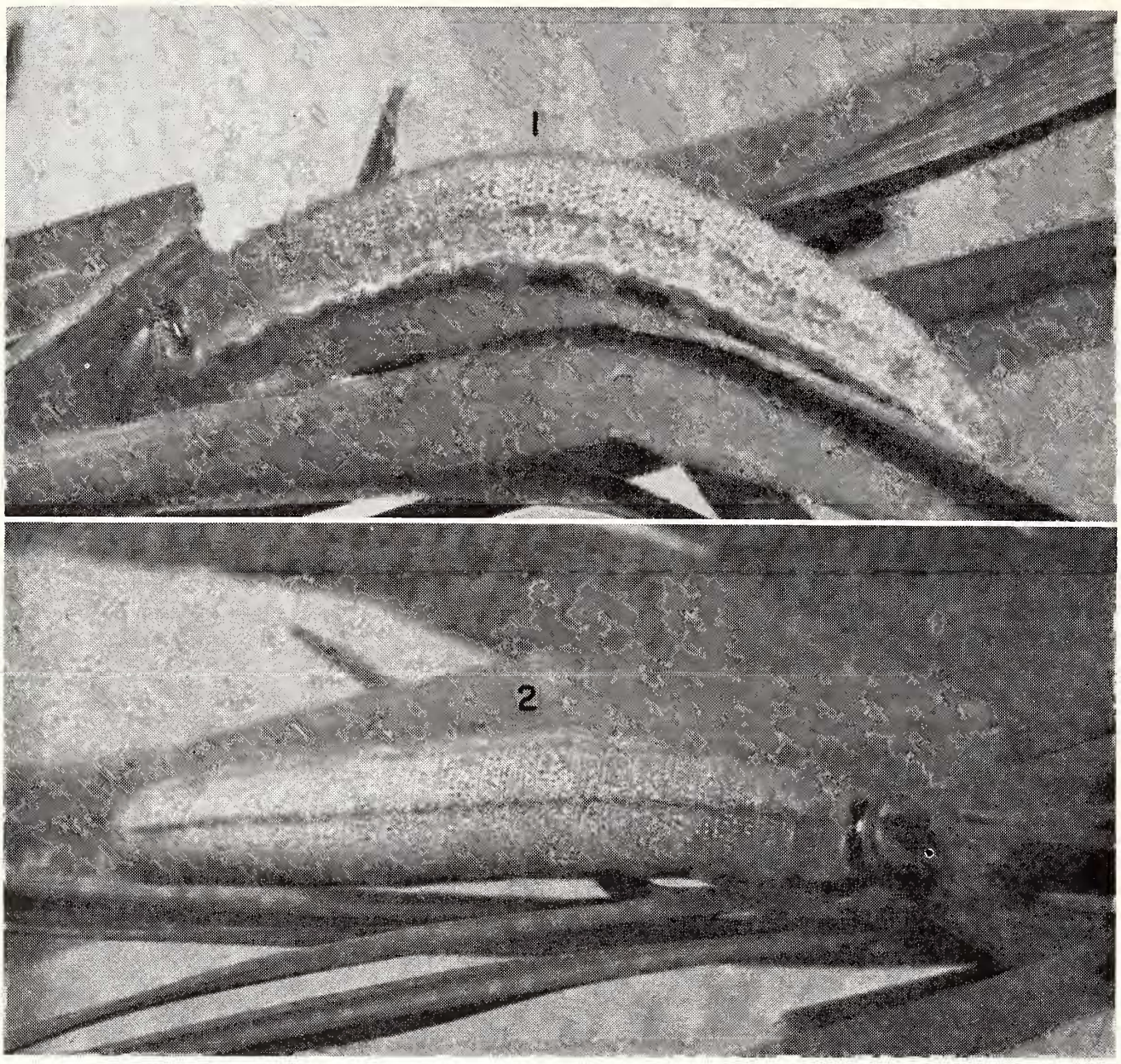
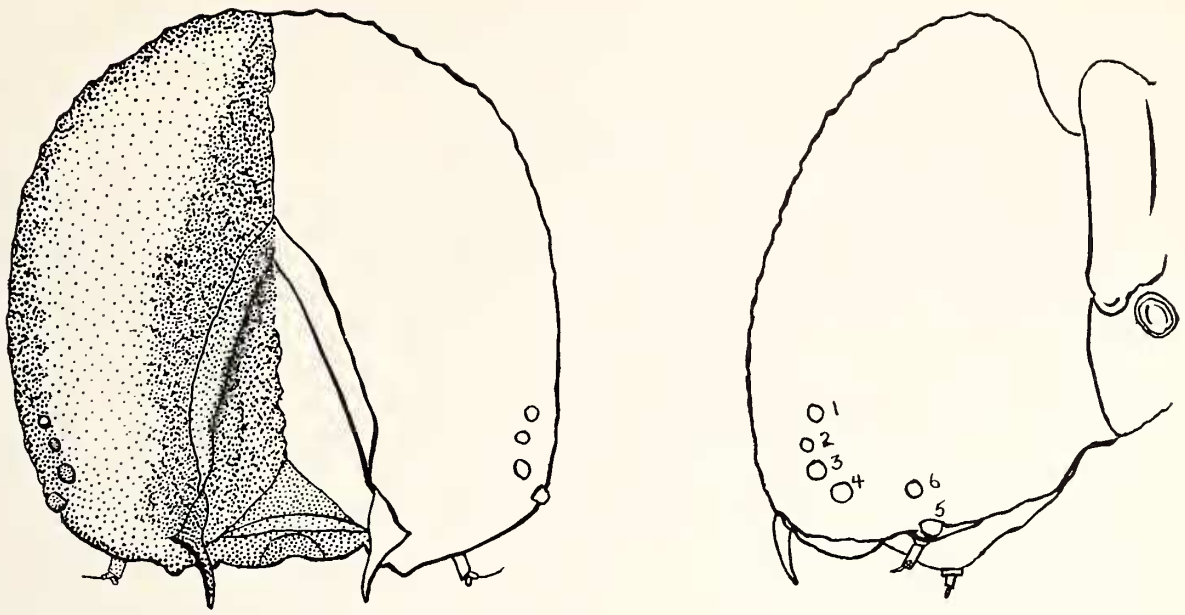
[2] The nomenclature of the anterior surface of the head of lepidopterous larvae is somewhat confused. Most recent systematists call the large, triangular, central sclerite the *frons*, the narrow sclerites along each side of this the *adfrontals*, and the transverse area ventrad of the so-called frons the *clypeus*. However, as shown by Snodgrass (1935, p. 121, fig. 64) the triangular central sclerite is really the clypeus; most of the true frons is invaginated within the so-called epicranial suture dorsad of the true clypeus; and the narrow, lateral sclerites are the ventral remnants of the true frons, separated by the dorsad extension between them of the true clypeus. Scudder (loc. cit., **I**, p. 8) calls the whole complex the "facial triangle, or clypeus."



FIGS. 1 & 2. Mature larva, *Amblyscirtes samoset* (Scudder), from life. FIG. 1: lateral aspect. FIG. 2: dorsal aspect.

No. 5 is ventrad and slightly caudad of 6, just above and slightly caudad of base of antenna and directed ventrad. Prothoracic shield heavily sclerotized, black, shining, its ventral margins somewhat undulate. Prothoracic spiracle very large, broadly and symmetrically oval.

Ground color of body very pale whitish green with darker dull green markings (Figs. 1 & 2). Meso- and metathorax fairly thickly covered with short setae arising from circular, well-sclerotized bases; remainder of body with shorter, much sparser setae, nearly all of which arise from almost unsclerotized bases. A distinct narrow, mid-dorsal, dark line from anterior end of mesothorax to posterior end of abdomen, weakening posteriorly; a more diffuse, dark, lateral, supraspiracular line from thorax to posterior end of abdomen, weakening posteriorly. A pale whitish, subspiracular line along the edge of a distinct, folded, lateral ridge from anterior edge of prothorax to posterior end of abdomen. Mesothorax almost completely dark, metathorax lighter, abdominal segments progressively lighter. On the posterior part (somewhat more than half) of each abdominal segment are 4 or 5 very narrow, somewhat irregular transverse dark lines between which are transverse rows



Figs. 3 & 4. Head of mature larva, *Amblyscirtes samoset* (Scudder). Fig. 3: anterior aspect; the shading shows pigmentation, not contour. Fig. 4: lateral aspect, showing also prothoracic shield and spiracle.

of dark dots; and on the anterior part (somewhat less than half) of each segment a number of dark dots, sometimes more or less in transverse rows, sometimes irregularly located.

DISCUSSION

Scudder's description and figures of the larvae of *A. vialis* (loc. cit., p. 1575–1588, Pl. 77, fig. 24 and Pl. 80, figs. 46–50) show it differing from that of *A. samoset* in a number of features. *A. vialis* has the head narrower and more emarginate and tapering dorsally; the frontal triangle is more largely pale; on either side of it is a narrow, vertical dark stripe that does not run dorsad to join the other dark areas; and the body is paler and more thickly setose and lacks the dark middorsal line and most of the other dark markings of *samoset*. Scudder cites the dorsally tapering, emarginate head and the protruding paraclypeal spines as generic characters for *Amblyscirtes*. Heitzman ("1964" [1965] and 1965) has described and figured in detail the larvae of *A. nysa* W. H. Edwards and *A. belli* A. Freeman. Each has a dark middorsal line, a dorsally tapering, emarginate head, and a distinctive dark and light banded head pattern generically like those of *A. vialis* and *samoset*. Paraclypeal spines are figured for the larva of *A. belli* but not mentioned; but are not mentioned or figured for the larva of *A. nysa*. In the latter case they may have been overlooked. The stemmata and prothoracic spiracle are not shown in detail. It seems probable that the paraclypeal spines and the banded head pattern may be regarded as characters for *Amblyscirtes,* but that the dorsally broader and non-emarginate head is peculiar to *A. samoset*. Details of the body pattern

and the surface sculpturing of the head may well prove to be characters of specific value when the larvae of more species are known.

Literature Cited

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The Discovery of Additional Journals of Frank E. Watson

In an obituary of Frank Edward Watson, 1877–1947, published in the **Journal of the New York Entomological Society** (1958, **66**: 1–6) the finding of some of his loose-leaf journals covering the years 1904 in part, 1906–1910, 1911 in part, 1912–1913, 1915 and 1923–1925 was reported. During Watson's last years he made his home with William Friedle of Ozone Park, Long Island, New York. With the death of William Friedle a few months ago his step nephew, Mr. Bruce Friedle, discovered a number of additional volumes of Watson's journals that had not been delivered to the undersigned when he purchased Watson's butterfly collection and library from Friedle after the former's death.

These additional journals have been kindly given by Mr. Friedle to the Department of Entomology of the American Museum of Natural History and are as follows: 1896–1905, 1914–1922, 1926–1931, 1934–1947. Thus the American Museum now has all of Watson's diaries in the Department of Entomology with the exception of those covering the years 1932 and 1933. These must be assumed to have been lost.

The Watson journals, as before observed, are extremely interesting and important as showing his activities in the field from day to day and in rearing Lepidoptera. Further details of these matters will be found on page 3 of the aforementioned paper. They also fix definitely his collecting localities which are only indicated on his specimens by code letters.

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